

EDUCATION

University of Cincinnati	BS	Nuclear Engineering
University of Cincinnati	MS	Health Physics
University of Cincinnati	PhD	Industrial Hygiene

CERTIFICATIONS / SPECIAL SKILLS

Professional Engineer, Nuclear Engineering Specialty, Ohio
Certified Industrial Hygienist
HAZWOPER, Hazardous Materials Technician Level
Hazardous Waste Shipper, including radioactive materials

PROFESSIONAL EXPERIENCE

National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention, Department of Health & Human Services, United States Public Health Service, Cincinnati, Ohio

October 2001 - Present: **Senior Research Officer**, Hazard Evaluations, Technical Assistance Branch (HETAB), DSHEFS, NIOSH

Serve as subject matter expert in the field of ionizing and non-ionizing radiation. Conduct health hazard evaluations to anticipate, recognize, evaluate, and control radiation, biological, and chemical hazards in the workplace. Collaborate with other occupational health professionals within the federal government, state and local agencies as well as foreign countries.

National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention, Department of Health & Human Services, United States Public Health Service, Cincinnati, Ohio

June 1999 - September 2001: **Senior Research Officer**, Health-Related Energy Research Branch (HERB), DSHEFS, NIOSH

Develop, plan, organize, conduct and supervise exposure assessment efforts associated with at least 4 research studies in the effects of exposure to ionizing radiation. Initiate and conduct data review and capture efforts at various off-site record storage locations (DOE vaults, Federal Records Centers, etc.) containing historical data pertinent to epidemiologic research. Develop quality control and assurance procedures for specific coding operations and provide expert advice and direction in related health physics matters. Conduct exposure assessments or develop new and innovative approaches where radiological hazards are present with little information about the nature and extent of the hazard using appropriate guidelines (ICRP, NCRP, etc.). Collaborate with other occupational health

CDR John Cardarelli II, PhD, CIH, PE

Health Services Officer

US Public Health Service

September, 2003

professionals within the federal government, state and local agencies as well as foreign countries. Conducted health hazard evaluations and dose reconstruction on workers employed in the nuclear weapons complex during the cold war era.

SPECIAL ASSIGNMENTS

TOPOFF2 : DHHS Representative to the FBI Joint Operations Center in Seattle, Washington during Operation TOPOFF2, May 11-16, 2003. Served as agency liaison to the FBI and provided scientific and technical guidance on radiological issues relating to emergency response and public health matters

Anthrax : First responder, among a team of five Industrial Hygienists, to the Bioterrorism attack in Washington D.C.. Developed the sampling strategies to initially characterize over thirty Capitol Hill buildings for anthrax contamination within a five day period. Provided scientific and technical guidance on the sampling strategies to the Leadership. Trained contractors and nearly 100 U.S. Marines on sample collection and quality control procedures.

Anthrax Environmental Clearance Committees: Served on the *Capital Hill* and the *State Department* anthrax environmental clearance committees that developed the criteria for re-opening *B. anthracis* contaminated buildings

Detail to the Office of Compensation Analysis and Support to create DHHS policy and guidelines in assessing the Special Exposure Cohort applications from former nuclear workers.

Technical Assistance/Consultation and Presentations in Taipei, Taiwan on exposure assessment techniques for buildings constructed with radioactive contaminated materials. Developed retrospective dose model to estimate cumulative radiation exposures for epidemiologic use.

Technical Assistance and Health Hazard Assessment conducted in Kazakhstan for the United States Peace Corps. Visual surveys and interviews of government officials on radiological capabilities and programs within several cities of the country.

PROFESSIONAL SOCIETIES

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|---------------------------------------------------------------------|----------------|
| • Association of Military Surgeons of the United States | 2003 - Present |
| • Reserve Officer Association | 2000 - Present |
| • Sigma Xi, Full Member | 1999 - Present |
| • American Conference of Governmental Industrial Hygienists, Member | 1998 - Present |
| • American Board of Industrial Hygienists, Member | 1998 - Present |

PROFESSIONAL SOCIETIES Con't

- Commissioned Officers Association, Member 1997 - Present
 - Past-President (Cincinnati Branch), 2003-Present
 - President (Cincinnati Branch), 2002-2003
 - President-Elect (Cincinnati Branch), 2001-2002
 - Treasurer (Cincinnati Branch), 1999-2000
- Health Physics Society, Member 1991 - 1999; 2003 - Present
 - State and Federal Legislation Committee Member: 1995 - 1998
- Cincinnati Radiation Society, Member 1990 - 1999
 - President: 1995 - 1996
 - President-Elect: 1994 - 1995
 - Board Member: 1991-1994

PHS AWARDS

- Field Medical Readiness Badge, 2003
- PHS Citation, 2003
- Cumming Award Recipient, October 2002 (World Trade Center & Anthrax Responses)
- Outstanding Unit Citation, 2002
- Crisis Response Service Award, 2002
- Commissioned Corps Training Ribbon, 2002
- Health Services Officer Category, Junior Officer of the Year Award, 2002
- Achievement Medal, 2000
- Bicentennial Unit Commendation, 1998

PHS SUPPORT ACTIVITIES

- **Contract Evaluation Panel Member** for review of proposals submitted in response to RFP 2003-N-0078 entitled "Technical Support for the Advisory Board on Radiation and Worker Health Review of NIOSH Dose Reconstruction Program." July, 2003
- **Commissioned Corps Readiness Force Roster Qualified**, Field Medical Readiness Badge approved June, 2003
- **HSO Mentor**, June 2003 – Present
- **HSO Website Discipline Contact**
- **Certificate of Appreciation:** Commissioned Officers Association, Community Care Day 1993, 1994, 1998, and 1999, 2003.
- **Special Emphasis Panel Member** for review of applications submitted in response to RFA No. 617 entitled "Occupational Radiation & Energy-Related Health Research Grants", 1996. Appointment by the Director of CDC.
- **Special Emphasis Panel Member** for review of applications submitted in response to RFA No. 521 entitled "Occupational Radiation & Energy-Related Health Research Grants", 1995. Appointment by the Director of CDC.

NON-PHS AWARDS, HONORS, CITATIONS, GRANTS, SKILLS

- **Charles C. Shepard Science Nomination Award** for publication #1.
- **Outstanding Service Award**, Equal Employment Opportunity Committee, 2002
- **Superior Work Performance Award**: U.S. Department of Health and Human Services, 1994, 1996, 1997.
- **Certificate of Recognition**: Center for Disease Control and Prevention, Project IMHOTEP, 1997
- **Competent Toastmaster**: Toastmasters International, 1995.
- **Letter of Delegation**: The Association of Radiation Victims (Taiwan), 1994.
- **Computer Skills**: *Wordprocessors*: WordPerfect and Micosoft Word;
Spreadsheets: Lotus, and Excel;
Graphics: Powerpoint, among several others;
Statistical Packages: SAS
Databases: SAS, and Microsoft Access

OTHER ACTIVITIES (NON-PHS)

- **Equal Employment Opportunity Committee Member**: Elected as Division of Surveillance, Hazard Evaluations, and Field Studies Representative (DSHEFS), NIOSH. 2000 - 2002.
- **Conference Committee Member**: 40th Annual Conference on Bioassay, Analytical, and Environmental Radiochemistry; Cincinnati, Ohio 1994
- **Committee Member**: Rocky Flats Working Dosimetry Group, 1993
- **Developed Radiological Monitoring Program Manual** for the Health-Related Energy Research Branch, NIOSH 1996.

PUBLICATIONS

1. **Cardarelli J**, Spitz H, Rice C, Buncher R, Elson H, Succop P. Significance of radiation exposure from work-related chest X-rays for epidemiologic studies of radiation workers. *Am. J. Ind. Med.* 42:490-501, 2002.
2. Neton J, Wenzl T, **Cardarelli J**, Utterback D. Retrospective exposure assessment for radiological technologists. *Radiation Research* 158 (6): 804-805, 2002.
3. Cardarelli J, Spitz H, Rice C, Buncher R, Elson H, Succop P, Daniels R, Kubale T. Evaluation of work-related medical x-rays in epidemiological studies of radiation workers. *Radiation Research* 158 (6): 807-808.

PUBLICATIONS Con't

4. Robinson C, **Cardarelli J**, Spitz H, Utterback DF. Diagnostic Radiation and the risk of multiple myeloma (United States)[Letter to the Editor]. *Cancer Causes and Control* 13:00-00, 2002.
5. Neton JW, Wenzl TB, Ju J, **Cardarelli J**, Doody MM, Freeman DM, Mohan AK, Alexander BH. 2001. External radiation exposure in a cohort of US radiologic technologists (1977 - 1998). *Health Physics*. 80(6): S117.
6. **Cardarelli J**. 2000. A Potential Consequence of Excluding Work-Required X-ray Exposures when Computing Cumulative Occupational Radiation Dose at a Uranium Enrichment Plant. Doctorate Dissertation: Department of Environmental and Occupational Health, College of Medicine, University of Cincinnati.
7. **Cardarelli J.**, Hornung R, Elliott L, and Chang W. 1997. Proposed Model for Estimating Dose to Inhabitants of ⁶⁰Co Contaminated Buildings. *Health Physics*. 72(3):351-360.
8. **Cardarelli J**, Spitz H, Eckart L. 1992. Evaluation of Occupational Exposure to ²²²Rn at the Fernald Environmental Management Project. *Health Physics* 62(6):S30.

TECHNICAL REPORTS

1. **Cardarelli J**. Ocean Bank Health Hazard Evaluation on exposures to extremely low frequency electromagnetic fields. HETA20020347-2910. July, 2003.
2. Ahrenholz, S., **Cardarelli J.**, Dill P., Hornung R., Reeder D., Rinsky R., Waters K., and Wenzl T. Final Report: Mortality patterns among uranium enrichment workers at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio. Health-Related Energy Research Branch, National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention, Department of Health and Human Services, September, 2001.
3. Conover D, Lotz WG, **Cardarelli J**, Kardous C. Osram Sylvannia Health Hazard Evaluation on exposures to radio frequency radiation. HETA2000372. April, 2001.
4. Kiefer M., Trout D., **Cardarelli J.**, and Hossain T. Equifax Payment Services, St. Petersburg, Florida. Health Hazard Evaluation Report #2000-0385-2813, 2000.
5. Jiggins T., **Cardarelli J.**, and Ahrenholz S., Hagerman Fossil Beds National Monument, National Park Service, U.S. Department of Interior, Hagerman, Idaho. Health Hazard Evaluation Report #96-0264-2713.

TECHNICAL REPORTS Con't

6. **Cardarelli J.**, Portsmouth Gaseous Diffusion Plant (Neutron Exposure Assessment); Hazard Evaluation Report #96-0198-2651. National Institute for Occupational Safety and Health. August, 1997.
7. **Cardarelli J.**, Spitz H, Elliott L, NIOSH Research Issues Workshop: Epidemiologic Use of Nondetectable Values in Radiation Exposure Measurements. National Institute for Occupational Safety and Health. NTIS PB95-189601, 1993.
8. **Cardarelli J.**, Evaluation of Occupational Exposure to Radon at the Fernald Environmental Management Project, Division of Graduate Studies and Research of the University of Cincinnati, Department of Mechanical, Industrial and Nuclear Engineering, 1992.
9. **Cardarelli J.**, Tomczak, L, The Radon Treatment System Efficiency Report, Feed Materials Production Center, Westinghouse Materials Company of Ohio, January, 1992.
10. **Cardarelli J.**, Gels G, The Dynamics of Radon Concentrations Near the K-65 Silos. Feed Materials Production Center, Westinghouse Materials Company of Ohio, FMPC-2224, 1991.

PRESENTATIONS

1. **Cardarelli J.**, Esswein E, Mattorano D, King B, Hall R. *Assessment of B. anthracis spores at the Hart Senate Office Building: The First Ten Days*. AIHA Indiana Section 2003 Winter Conference and Vendor Exhibition. Indianapolis, IN. February 19, 2003. (Invited Presenter).
2. **Cardarelli J.**, Lotz G. *Electronic Tool Box for Radiological Emergency Response*. NIOSH Salt Fork XI Conference. Parkersburg, WV. November 13-14, 2002.
3. **Cardarelli J.** *Evaluation of Work-Related Medical X-rays in Epidemiologic Studies of Nuclear Workers*. American Statistical Society Conference on Radiation and Health. Deerfield Beach, FL. June 23-26, 2002. (Invited Presenter).
4. **Cardarelli J.**, Conover D, Lotz G, Kardous C. *Exposure Assessment and Engineering Control Strategies for RF Fields*. American Industrial Hygiene Conference & Exposition. San Diego, CA. June 1-6, 2002.
5. Gillen M, Durno M, Gressel M, **Cardarelli J.**, Kowalski P. *Industrial Hygiene Issues Associated with "Releasing" a Building Previously Contaminated with Bacillus anthracis for Re-Occupancy: The Case of the Hart Senate Office Building. A Panel Discussion*. American Industrial Hygiene Conference & Exposition. San Diego, CA. June 1-6, 2002.

PRESENTATIONS Con't

6. **Cardarelli J.** *NIOSH Anthrax Health Hazard Evaluations: Sampling and Method Issues.* OSHA Annual Consultation Conference. Tucson, AZ. April 29 - May 2, 2002. (Invited Presenter)
7. **Cardarelli J,** Spitz H, Rice C, Buncher CR, Elson H, Succop P. *Significance of Radiation Exposure from Work-Related Chest X-rays for Epidemiologic Studies of Radiation Workers.* Exposure Assessment in Epidemiology and Practice Conference, Göteborg, Sweden. June 10-13, 2001.
8. **Cardarelli J.** *Significance of Radiation Exposure from Work-Related Chest X-rays for Epidemiologic Studies of Radiation Workers.* University of Cincinnati, Department of Environmental Health Seminar, February, 2000. (Invited Presenter)
9. **Cardarelli J.** *A Potential Consequence of Excluding Work-Required X-ray Exposures when Computing Cumulative Occupational Radiation Dose at a Uranium Enrichment Plant.* University of Cincinnati, Department of Mechanical, Industrial and Nuclear Engineering Seminar Series, MONTH, 1999. (Invited Presenter)
10. **Cardarelli J.,** Rinsky R.A., Hornung R., Ahrenholz S.H., Reeder D., and Dill P. Oral Presentation: The Development of a Job Exposure Matrix Using Uranium Alpha-Count Data in Epidemiology. The Forty-Second Annual Meeting of the Health Physics Society, San Antonio, Texas, 1997.
11. **Cardarelli J,** Elliott L, Chang W, Poster Presentation: Epidemiologic Study of Buildings Contaminated with Cobalt-60: Exposure Assessment Model, The Annual Conference on the International Society for Environmental Epidemiology and the International Society for Exposure Analysis, Noordwijkerhout, The Netherlands, 30 August - 1 September, 1995.
12. Chang WP, Hwang JS, Chan CC, Wang LA, Hwang BF, Tsau CJ, **Cardarelli JJ,** Poster Presentation: Dose Reconstruction for (-irradiated Overexposure from Residential Buildings in Taiwan, The Annual Conference on the International Society for Environmental Epidemiology and the International Society for Exposure Analysis, Noordwijkerhout, The Netherlands, 30 August - 1 September, 1995.
13. **Cardarelli J,** *Plenary Speaker Presentation:* Status of Epidemiologic Studies on D.O.E Facilities, 39th National Meeting of the Health Physics Society, San Francisco, June 1994.
14. Kinnes, G, Meinhardt T, **Cardarelli J,** Presentation: Environmental Health and Occupational Hygiene in Two Former Soviet Republics, National Institute for Occupational Safety and Health, 1993.